

Preface

We are delighted to invite you to the book that collected articles from the 5th International Conference on Global Sustainability and Chemical Engineering (ICGSCE) 2021 which was held virtually on September 14-15, 2021. ICGSCE has been organized by the School of Chemical Engineering, College of Engineering, Universiti Teknologi Mara (UiTM), Malaysia on a bi-annual basis. ICGSCE 2021 was the V series with the main purpose to explore the diversity of studies in the field of chemical engineering and related components.

ICGSCE 2021 aimed to promote interactions among scientists, engineers and academics from research institutions, universities, and industries around the world to discuss recent discoveries in the context of global sustainability, especially in the field of chemical engineering. ICGSCE 2021 included the participation of renowned keynote speakers, oral presentations, poster sessions and technical conferences related to the topics dealt with in the ICGSCE 2021 Scientific Program.

We were glad to receive valuable voices from professionals and industry colleagues. Their participation made the conference more significant and successful. We hope that this conference was one of the most rewarding and memorable meetings for all of us.

ICGSCE2021 Committee

Committees

Chairman

Dr Nik Raikhan Nik Him

Deputy Chairman

Ir Ts Dr Fauziah Marpani

Secretary

Dr Norhidayah Ideris

Dr Siti Nurul'ain Yusop

Publication Committee

Associate Prof Ir Ts Dr Nur Hidayati Othman

Ts Dr Nur Hashimah Alias

Dr Muhammad Shafiq Mat Shayuti

Dr Suhaiza Hanim Hanipah

Dr Nor Hazelah Kasmuri

Dr Munawar Zaman Shahruddin

Ir Dr Ashraf Azmi

Committee Members

Treasurer: Dr Farah Hanim Ab. Hamid

Conference Management System: Dr Nor Faeqah Idrus & Encik Hanafiah Zainal Abidin

Sponsorship: Associate Prof Ir Dr Nadiahnor Md. Yusop

Information Technology and Technical Programme: Dr Sherif Abdulbari Ali

e-Programme Book, e-Certificates and Awards: Dr Rozana Azrina Sazali